AM-FM STEREO TUNER

KT-54

INSTRUCTION MANUAL

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.
Model KT-54 Serial Number_____

Unpacking

Unpack the unit carefully and make sure that all accessories and cables are put aside so they will not be lost.
Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Before applying power

IMPORTANT!

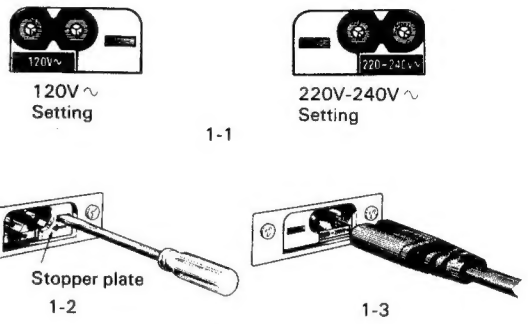
U.S.A. and Canada
Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only. These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows should be disregarded.

All other countries
Units shipped to countries other than U.S.A. and Canada are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 120 volts or 220 – 240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.



120V ∿ Setting
1-1
220V-240V ∿ Setting
1-2
1-3

Fig. 1

1. Before plugging in this unit, make sure that the position of the AC Voltage Selector conforms to your line (mains) voltage. If not, it must be reset. See Fig. 1-1.
2. To reset the selector, slide the stopper plate to the opposite side with a screwdriver or other pointed tool. See Fig. 1-2.
3. Insert the power cord securely. See Fig. 1-3.

WARNING:
TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Rear panel safety precautions

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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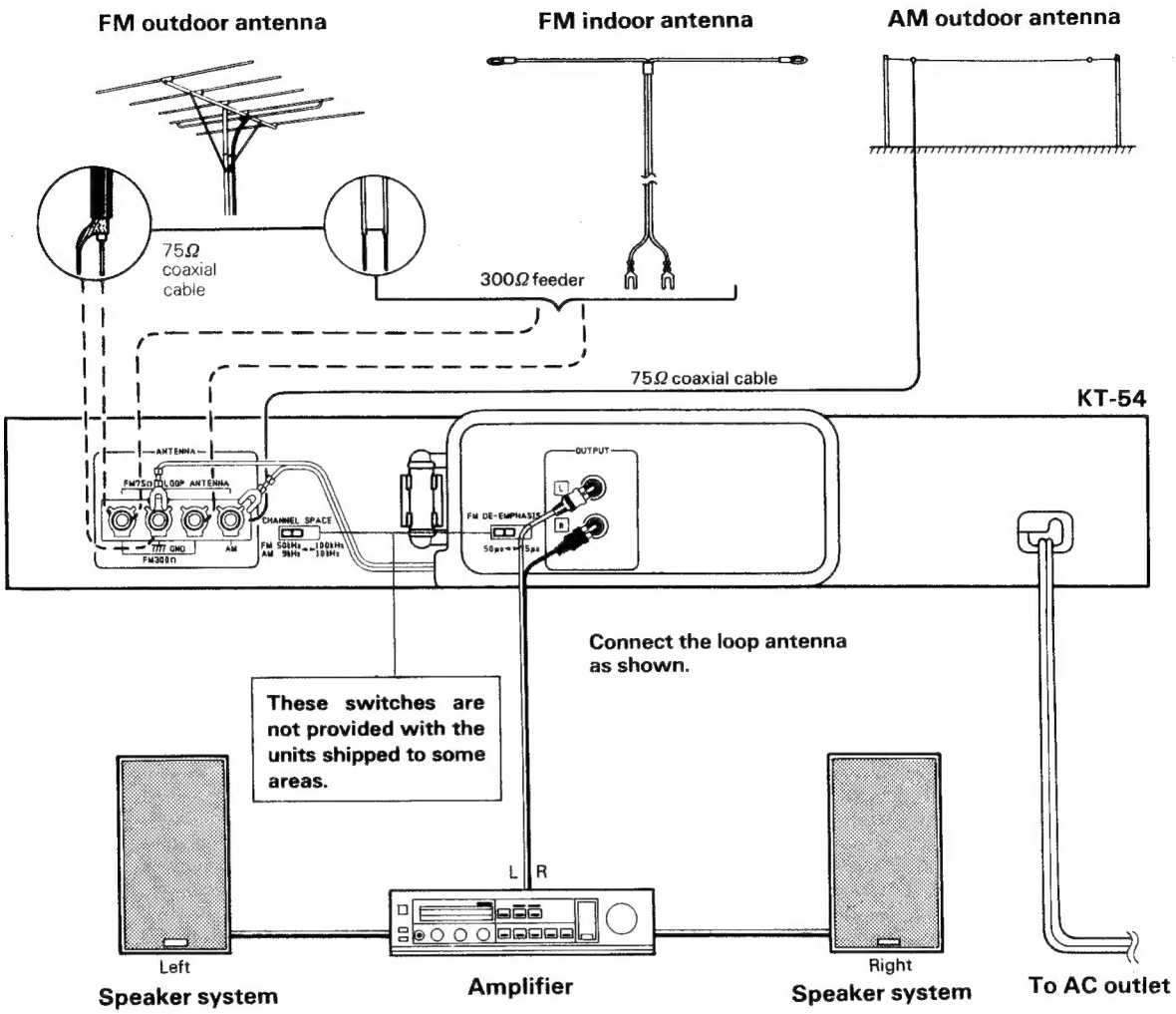
System connections



Output

Signals from the output jacks are fed to the amplifier. Connection cables should be plugged to the amplifier TUNER or AUX jacks. Shielded cables terminated at both ends with standard phono plugs are supplied with this tuner.

Power cord

A low power is supplied to the memory to retain the memory contents when the POWER switch is set to OFF. Even when the power cord is disconnected from the AC outlet, the memory is backed up. The memory contents are retained for about three days.

Ground

For maximum safety and minimum interference connect the GND terminal to a good earth ground if practicable.
A good earth ground is a cold water pipe or a metal stake driven into moist earth. However, never use a gas pipe for this purpose.

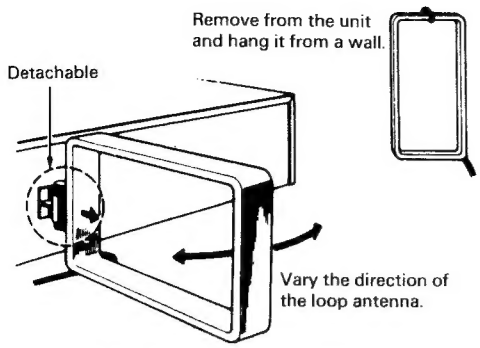
AM antennas

AM loop antenna

Tune in your favorite AM station and position the loop antenna for best reception. Try other stations and find the position that gives best overall reception. When this unit is mounted in a rack or placed on a shelf with insufficient space behind, remove the loop antenna and hang it from a wall in the direction which gives best reception.
If the length of the lead wire is too short, add a lead wire of an appropriate length.

AM outdoor antenna

In steel buildings or at a great distance from the transmitter, it may be necessary to install an outside long wire antenna. The end of this wire should be stripped of insulation and connected to the AM terminal. At this time, keep the loop antenna connected.



AM loop antenna setting

FM antennas

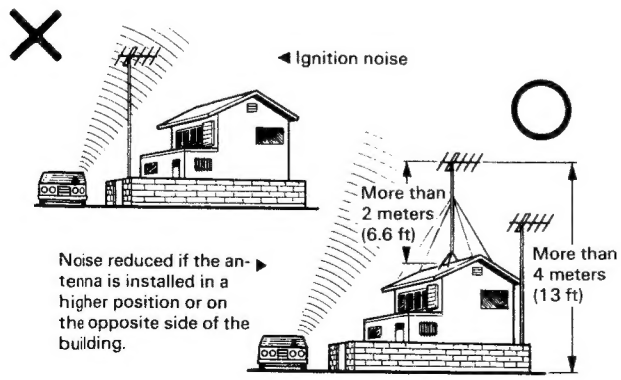
Your tuner approaches the theoretical limit in FM sensitivity. However, the performance of your system is determined to a very large extent upon the signal conditions where the antenna is placed. The reason is that FM broadcast signals travel in straight paths. Therefore they can be blocked by natural or man-made obstructions such as mountains, hills, or buildings. At large distances from the transmitter the curvature of the earth acts as a screen between transmitter and receiver.

Consider the signal conditions in planning your installation. If you live in or near an urban area the indoor antenna (supplied) may serve your needs adequately. However, if favorite stations are weak due to natural obstructions, or if you live in a building which is made of steel-reinforced concrete (which acts as a shield) it may be necessary to install a good outdoor antenna.

FM outdoor antenna

Consult with your dealer or service man about the best method of selecting and erecting an outdoor FM antenna.

The choice of lead-in (feeder) wire is also important. The flat ribbon-shaped twin lead performs well electrically, is cheaper and is somewhat easier to handle in routing through windows and around rooms. Coaxial cable is more expensive, does a much better job of minimizing interference, is less prone to the effects of weather and close-by metal objects, and is nearly as good a signal conductor as the ribbon type wire. The latter is particularly true of foam-type coaxial cables. Coaxial cable is somewhat more difficult to install at the point where the cable enters the building. If coaxial cable is selected, make sure the antenna is designed to drive that type of cable.



FM outdoor antenna setting

FM indoor antenna

Connect the T-shaped indoor antenna (supplied) to the 300Ω FM ANTENNA terminals as shown in the System connections diagram. Spread the two arms that form the top of the "T" horizontally and hold them against convenient wall surfaces. Try several locations for best results on your favorite stations. Tape the antenna in place where the best compromise is found between listening results and appearance.

FM DE-EMPHASIS switch

This switch has been set to the correct position for a given market area. However, check to see that this switch is set correctly before operating your tuner. An incorrect setting will adversely affect high-frequency performance. (The FM DE-EMPHASIS switch is not equipped with units shipped to Oceania.)

Europe, Oceania and South Africa ..... 50 μs
Other countries ..... 75 μs

AM/FM CHANNEL SPACE switch

The CHANNEL SPACE switch on the rear plate is set to the correct setting that prevails in the area to which the unit is shipped. However, if the channel space setting is not matched to the area where the tuner is to be used; for instance, when you moved from area 1 to area 2 or vice versa, desired reception of AM/FM broadcasts is not expected. In this case, change the CHANNEL SPACE setting in accordance with the area corresponding to the table shown below.

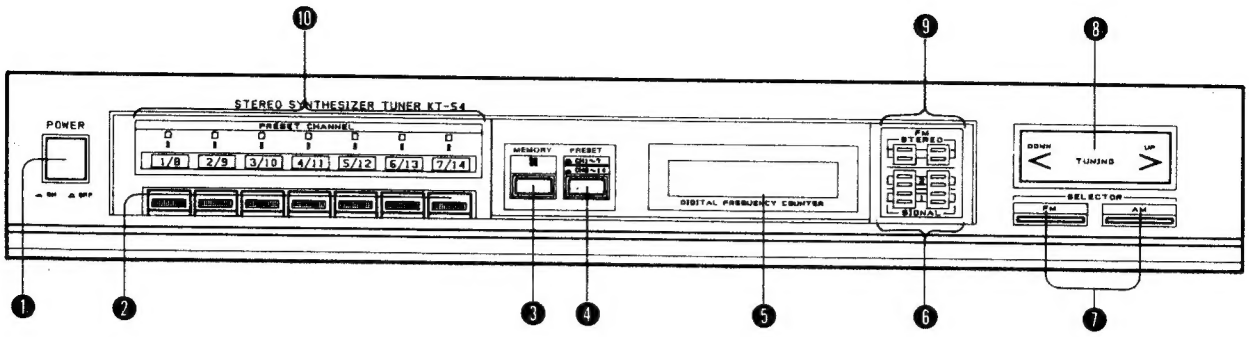
Area	Channel Space Frq.	
1 U.S.A., Canada Hawaii, and Guam	**FM:**	100 kHz
	AM:	10 kHz
2 European countries Far East countries	**FM:**	50 kHz
	AM:	9 kHz

Channel Space Table

Note:

When changing the setting of the AM/FM CHANNEL SPACE switch, turn the POWER switch OFF and ON.

Controls and indicators



❶ POWER switch
Press this switch to supply power. Press the switch again to turn the power off.

❷ PRESET CHANNEL switches
One AM or FM station can be stored in each PRESET CHANNEL switch. When the switch is pressed, the stored frequency is displayed in the DIGITAL FREQUENCY COUNTER. Press the MEMORY switch, then press one of the PRESET CHANNEL buttons within 5 seconds.

❸ MEMORY switch
When this switch is pressed, the unit stands by for preset station memory.

❹ PRESET CHANNEL selector
When this switch is set to OFF (⊓), CH 1 – 7 PRESET CHANNEL switches can be operated. When this switch is set to ON (⊔), CH 8 – 14 PRESET CHANNEL switches can be operated.

❺ DIGITAL FREQUENCY COUNTER
Indicates the frequency of the AM or FM station received. Tune in to the required station observing the DIGITAL FREQUENCY COUNTER.

❻ SIGNAL indicator
Indicates the signal strength. Tuning should be performed so that the indicator illumination increases as much as possible.

❼ FM/AM selector switch
FM: Press this switch for FM reception.
AM: Press this switch for AM reception.

❽ TUNING key
Use these switches for tuning.
UP > switch: Press this switch for higher frequency. When the switch is kept pressed, the frequency changes continuously.
DOWN < switch: Press this switch for lower frequency. When the switch is kept pressed, the frequency changes continuously.

❾ STEREO indicator
Lights when an FM stereo broadcast is received.

❿ PRESET CHANNEL indicators
When the PRESET CHANNEL button is pressed, the corresponding indicator of the PRESET CHANNEL button lights.

Operating instructions

■ Manual tuning

1. Set the input selector of the amplifier to TUNER.
2. Press the POWER switch.
   The DIGITAL FREQUENCY COUNTER lights and the frequency of the last station* is displayed.
3. For AM reception, press the AM button of the FM/AM selector switch. The AM indicator in the DIGITAL FREQUENCY COUNTER lights.
   For FM reception, press the FM button of the FM/AM selector switch. The FM indicator in the DIGITAL FREQUENCY COUNTER lights.
4. Tune in to the required station with the TUNING key.
5. Adjust the volume and tone with the amplifier.

Note:
During tuning, observe the DIGITAL FREQUENCY COUNTER and SIGNAL indicator to tune in the optimum position.

*** Last channel**
As the memory of this unit is backed up, the frequency received before the power is turned off is memorized. This is referred to as the last channel frequency. When the power is turned on again, the unit tunes in to the last channel frequency.

■ Preset tuning

1. Receive a station (AM or FM).
2. Press the MEMORY switch.
3. Press one of the PRESET CHANNEL switch within 5 seconds.
   The PRESET CHANNEL indicator lights up to show that the station is preset.
   Perform the same procedures on other PRESET CHANNEL switch. Up to 14 stations (AM/FM) can be randomly preset.
   To receive the preset station, press the corresponding PRESET CHANNEL switch.

Before operation

Notes on installation

Do not place the unit in a place which is exposed to direct sunlight, near a heating appliance, etc.

Do not place a vase containing water, makeup, etc. on the unit. Do not use in a humid place.

Choose a location that is relatively free from vibration or excessive dust.

Safety precautions

Never remove the case. If the internal parts are touched accidentally, a serious electric shock might occur.

Touching the power plug when your hands are wet may result in a serious electric shock.

Never pull, bend or extend the power cord. This could damage the power cord, resulting in a broken cord or short-circuit.

Cleaning

Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzine, etc. to clean the cabinet. Use a silicone cloth or a clean dry cloth.

In case of abnormal smell

If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power plug. Contact your dealer or nearest service station.

In case of difficulty

If your tuner should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

General	Possible cause	Correction
The station stored in the PRESET STATIONS switch is erased.	The memory is not backed up the due to poor power cord connection. Connect the power cord securely to the AC outlet.	When the power cord is connected to the amplifier switched AC outlet or timer, the memory contents are retained for only about 3 days.
Occurs during AM reception only	**Possible cause**	**Correction**
Intermittent buzz or crackling sound.	Lightning. Fluorescent lamps starting. Appliance or furnace starting.	No remedy. Try reversing AC plug. Try reversing AC plug.
Occurs during FM reception only	**Possible cause**	**Correction**
Hiss that gets worse in stereo reception.	Very weak antenna input signal.	Consider an outdoor antenna installation. In areas remote from the transmitter a 5 to 8 element antenna designed exclusively for FM is suggested.
Rhythmic static or popping noises.	Automobile ignition noise, especially evident when receiving weak signals.	Review antenna installation. Site the anten na sa far from the street as possible and use coaxial cable.

Specifications

[FM tuner section]

Usable sensitivity ..... 10.8 dBf (0.95 μV)
50dB quieting sensitivity
Mono ..... 14.5 dBf (3 μV)
Stereo ..... 37.2 dBf (40 μV)
Signal to noise ratio
Mono ..... 76 dB at 65 dBf, 76 dB at 85 dBf
Stereo ..... 70 dB at 65 dBf, 70 dB at 85 dBf
Total harmonic distortion
Mono: 100 Hz 0.2%
1 kHz 0.2%
50 Hz ~ 10 kHz 0.5%
Stereo: 100 Hz 0.3%
1 kHz 0.3%
50 Hz ~ 10 kHz 0.9%
Capture ratio ..... 2.0 dB (2.5 dB for European model)
Alternate channel selectivity ..... 50 dB
Stereo separation
1 kHz ..... 45 dB
50 Hz ~ 10 kHz ..... 35 dB
Frequency response ..... 30 Hz to 15 kHz +0.5 dB, –2.5 dB
Spurious rejection ratio ..... 75 dB
Image rejection ratio ..... 40 dB
IF rejection ratio ..... 90 dB
AM suppression ratio ..... 55 dB
Sub-carrier suppression ratio ..... 35 dB
Antenna impedance ..... 75Ω unbalanced & 300Ω balanced
FM frequency range ..... 87.5 MHz to 108 MHz
Output level/impedance at 1 kHz, 100% dev. ..... 0.6V/3.3 kΩ

[AM tuner section]

Usable sensitivity ..... 20 μV (400 μV/m)
Signal to noise ratio ..... 50 dB
Total harmonic distortion 0.6%
Image rejection ratio ..... 35 dB
IF rejection ratio ..... 50 dB
Selectivity ..... 25 dB
Output level/impedance (400 Hz, 30% Mod.) ..... 0.18V, 3.3 kΩ

[General]

Power consumption ..... 8 W
Dimensions ..... W: 420 mm (16-17/32")
H: 72 mm (2-27/32")
D: 276 mm (10-7/8")
Weight (Net) ..... 2.9 kg (6.4 lb)

Note:
We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.